

## REMARKS

### A. 35 U.S.C. § 103

#### 1. Ishii et al. and Ishizuka et al.

In the Office Action mailed on May 3, 2004, claims 1-12 and 17-20 were rejected under 35 U.S.C. §103 as being obvious in view of Ishii et al. and Ishizuka et al. Applicants traverse this rejection. Independent claims 1 and 17 each recite that the beams of light emitted by the light source in effect are transmitted through the same measuring graduation structure in opposite directions. In contrast, Ishii et al. discloses a light emitting device 1 that emits light through a lens 2 so that it is transmitted through diffraction grating 3A. As shown in FIG. 3, the light is diffracted and reflected off of grating 21. From grating 21, the light is directed to diffraction gratings 3B and 3C. The light reflected from grating 21 is not reflected back onto grating 3A.

Ishizuka does not cure the deficiencies of Ishii et al. In particular, there is no motivation in Ishizuka to alter Ishii et al. so that the light reflected from grating 21 is reflected back onto grating 3A. Ishizuka is similar to Ishii et al. in that it discloses emitting light from a light source LGT through diffraction grating GT. The transmitted light is then directed to diffraction gratings GBS1 and GBS2 through which the light is transmitted onto light receiving elements. The light is not retransmitted through grating GT. Without motivation to alter Ishii et al. so that the light reflected from Ishii et al.'s grating 21 is reflected back onto grating 3A, the rejection is overcome and should be withdrawn.

#### 2. Ishii et al., Ishizuka et al. and Ito et al.

Claims 13-16 were rejected under 35 U.S.C. §103 as being obvious in view of Ishii et al., Ishizuka et al. and Ito et al. Applicants traverse this rejection. Independent claim 13 recites that

the beams of light emitted by the light source in effect are transmitted through the same measuring graduation structure in opposite directions. As mentioned above in Section A.1, neither Ishii et al. nor Ishizuka et al. suggest altering Ishii et al. so that the light reflected from Ishii et al.'s grating 21 is reflected back onto grating 3A. Ito et al. does not cure the deficiencies of Ishii et al. and Ishizuka. As shown in FIG. 17, Ito et al. discloses directing light from light source 1 through rotary plate 4 and reflecting the transmitted light so that is transmitted through grating 7 prior to being transmitted through plate 4 a second time. Accordingly, Ito et al. lacks a reflection scanning graduation. Since Ito et al. does not suggest altering Ishii et al.'s system so that light reflected from Ishii et al.'s grating 21 is reflected back onto grating 3A. Without such motivation, the rejection is overcome and should be withdrawn. It should be noted that Ito et al. is silent as to arranging grating 7 directly on a housing opposite a scanning unit.

**B. New Claims 21-25**

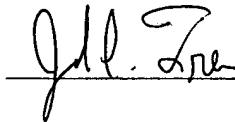
New claims 21-25 depend directly on either claim 1, 13 or 17 and so are patentable for at least the same reasons given above in Section A with respect to claims 1, 13 and 17.

Please note that new claims 21-25 are being presented to provide additional coverage for rotary position measuring systems. Accordingly, the new claims are not being presented for reasons of patentability as defined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.* 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (*en banc*), *overruled in part*, 535 U.S. 722 (2002).

## CONCLUSION

In view of the arguments above, Applicants respectfully submit that all of the pending claims 1-25 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "John C. Freeman", is written over a horizontal line.

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